



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,304	03/12/2004	Koichi Nishimura	1785.1011	5782
21171	7590	09/28/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			MACKEY, JAMES P	
		ART UNIT		PAPER NUMBER
		1722		

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/798,304	NISHIMURA ET AL.
	Examiner James Mackey	Art Unit 1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1,2 and 4-8 is/are rejected.
- 7) Claim(s) 3,9 and 10 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/12/04; 7/29/04</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

Art Unit: 1722

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, lines 3-4, and claim 5, lines 3-4, "opposite to said stationary platen about said first and second movable platens" is unclear and indefinite as to exactly where the end frame is located (how is the end frame "about said first and second movable platens"?).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga et al. (US 2003/0017230; Figures 10-12; paragraphs 56 and 60-71).

Yoshinaga et al. (Figures 10-12) discloses a clamping mechanism comprising a stationary mold platen 3 mounted on a bed 1, guide bars 11 (which also functions as tie rods, see paragraph 56) fixed to the stationary platen and an opposed end frame 7, a first movable mold platen 4, 8 movably arranged along the axis of the guide bars via through-holes in the first movable platen (see paragraphs 45 and 62, and Figures 6 and 9), a second movable platen 2 separate from the first movable platen and arranged movably along the guide bar axis, a connecting member 9 connecting the first and second movable platens to each other in a manner shiftable relative to each other along the guide bar axis, the connecting member comprising a biasing member elastically biasing the first and second movable platens away from each other, and a drive section 12, 20-23 for applying a drive force to the second movable platen to move the first and second movable platens along the guide bar axis, except for explicitly disclosing a support structure interposed between the guide bar and the first movable platen for movably supporting the first movable platen on the guide bar. However, it would have been obvious and well within the level of ordinary skill in the art at the time of the invention to modify Yoshinaga et al., if not in fact intended, by providing a conventional sliding bushing support structure interposed between the guide bar and the first movable platen in order to facilitate the sliding motion between the guide bar and the through-hole of the first movable platen.

7. Claims 1, 2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshinaga et al. in view of EP 1,136,220 (Figure 1).

Yoshinaga et al. disclose the clamping mechanism substantially as claimed, comprising a stationary mold platen 3 mounted on a bed 1, guide bars 11 (which also functions as tie rods, see paragraph 56) fixed to the stationary platen and an opposed end frame 7, a first movable mold platen 4, 8 movably arranged along the axis of the guide bars via through-holes in the first movable platen (see paragraphs 45 and 62, and Figures 6 and 9), a second movable platen 2 separate from the first movable platen and arranged movably along the guide bar axis, a connecting member 9 connecting the first and second movable platens to each other in a manner shiftable relative to each other along the guide bar axis, the connecting member comprising a biasing member elastically biasing the first and second movable platens away from each other, and a drive section 12, 20-23 for applying a drive force to the second movable platen to move the first and second movable platens along the guide bar axis, except for a support structure interposed between the guide bar and the first movable platen which comprises a spline engaging surface on the guide bar cooperating with a ball spline nut in the first movable platen. EP '220 discloses a clamping mechanism comprising a stationary mold platen 2 mounted on a bed 1, guide bars 5 fixed to the stationary platen and an opposed end frame 3, and a movable mold platen 4 movably arranged along the axis of the guide bars via through-holes in the movable platen, a support structure interposed between the guide bar and the movable platen, and a drive section 10, 11 for applying a drive force to the movable platen, wherein the support structure comprises a spline engaging surface 7 on the guide bar and a ball spline nut 6 in the through-hole of the movable platen operatively engaged with the spline engaging surface. It would have been

obvious to one of ordinary skill in the art at the time of the invention to modify Yoshinaga et al. by providing a support structure interposed between the guide bar and the first movable platen in the form of a ball spline nut cooperating with spline engaging surface on the guide bar, as disclosed in EP '220, in order to facilitate the linear guiding of the movable platen while minimizing tilting or skewing of the movable platen. With regard to the tie bar separate from the guide bar as claimed in claims 5-6, Yoshinaga et al. disclose two guide bars 11 which also function as tie bars (see paragraph 56), and therefore one reads on the claimed guide bar and the other reads on the claimed separate tie bar (note that EP '220 similarly discloses plural guide bars 5).

8. Claims 3, 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or fairly suggest a clamping mechanism including first and second movable platens connected by a connecting member for movement along the guiding axis of a guide bar fixed to a stationary mold platen, and a support structure comprising a spline engaging surface on the guide bar and a cooperating ball spline nut in the first movable platen, wherein the second movable platen includes a through-hole receiving the guide bar without engaging with the spline engaging surface, as claimed in claim 3. The prior art of record does not teach or fairly suggest a clamping mechanism including first and second movable platens connected by a connecting member for movement along the guiding axis of a guide bar fixed to a stationary mold platen, and a support structure interposed between the guide bar and the first movable platen for movably supporting the first movable platen on the guide bar,

wherein the connecting member connects the first and second movable platens shiftably relative to each other along the guiding axis, with a biasing member interposed between the first and second movable platens for elastically biasing the first and second movable platens toward each other along the guiding axis, as claimed in claim 9. The prior art of record does not teach or fairly suggest a clamping mechanism including first and second movable platens connected by a connecting member for movement along the guiding axis of a guide bar fixed to a stationary mold platen, and a support structure interposed between the guide bar and the first movable platen for movably supporting the first movable platen on the guide bar, wherein the first movable platen is made from a material having a rigidity higher than that of the second movable platen, as claimed in claim 10.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Havlik (U.S. Patent 3,642,403; Figures 1-3) discloses a clamping mechanism comprising stationary mold platen 90 and end frame 32 interconnected by guiding tie bars 21, first movable mold platen 23 slidably supported on the tie bars by a support structure (col. 3, lines 1-2), second movable platen 24, 25 separate from the first movable platen and arranged movably along the tie bars, a connecting member 59 for connecting the first and second movable platens in a shiftable manner relative to each other along the guiding axis, and a drive section for applying a drive force to the second movable platen to move the first and second movable platens along the guiding axis.

Art Unit: 1722

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James Mackey
Primary Examiner
Art Unit 1722

9/23/05

jpm

September 23, 2005